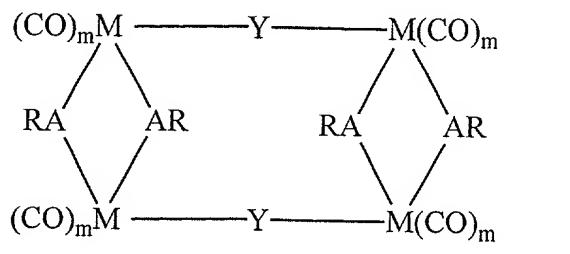


ABSTRACT

This invention features a supramolecule having the following structure:



M is a transition metal atom that is rhenium (Re), manganese (Mn), chromium (Cr), molybdenum (Mo), tungsten (W), iron (Fe), ruthenium (Ru), or osmium (Os); Y is a nitrogen-based didentate ligand; A is O, S, Se, or Te; R is $\text{C}_3\text{--C}_{16}$ alkyl, $(\text{CH}_2)_n$ -aryl, or $(\text{CH}_2)_n\text{-aryl-(O-C}_1\text{--C}_{16}\text{ alkyl)}_p$, in which n is 0-15, p is 1-3; and m is 1, 2, 3, 4, or 5.

5

10

20376639